Safety's Bottom Line:
Leveraging Data to
Reduce Risk and Costs in
Construction

GEOTAB® CFMA

Agenda

Topics

Telematics to Improve Driver Behavior:

Addressing Driver Behavior with Data for Safer, More Cost-Effective Operations.

Leveraging Data to Reduce Risk and Costs in Construction:

Using Fleet-Wide Data Insights to Mitigate Broader Risks & Enhance Profitability.

Focus: Foundational Concepts & Tangible Financial Results.

The Financial Stakes of Driver Behavior

Driver behavior is a major risk & cost center.

- **Direct Costs:**
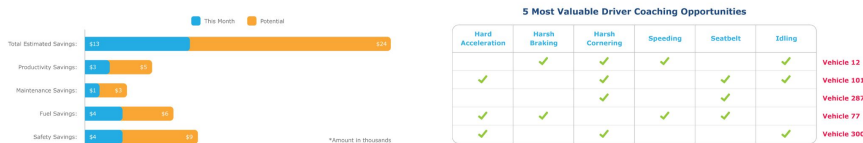 - *Accidents*: Repairs, downtime, potential for multi-million dollar costs in severe cases.
  - Insurance: Premiums impacted by safety records.
  - *Fuel Waste*: Aggressive driving can cut fuel efficiency by 10-40%; idling costs add up significantly
  - *Maintenance*: Hard braking/acceleration increases wear & tear.
- **Indirect Costs:** Project delays, liability, reputation, driver turnover costs.
- The Stress Factor: Studies show ~68% of drivers report work stress negatively impacts performance; ~78% link stress to road dangers.

ABC Company Fleet Savings Summary

Fleet Size - 303
Avg Vehicle Yearly Mileage - 10,920.81
Select Vehicle Class: Medium Duty

Total Monthly Savings	Safety Savings	Fuel Savings	Maintenance Savings	Productivity Savings
$12,673.86	**$4,167.91**	**$4,228.29**	**$1,470.86**	**$2,806.80**
$152,086.29 annual	$50,014.95 annual	$50,739.46 annual	$17,650.33 annual	$33,681.56 annual
Potential Savings	Potential Savings	Potential Savings	Potential Savings	Potential Savings
$24,232.78	**$9,381.40**	**$6,344.76**	**$3,341.42**	**$5,165.21**
$290,793.41 annual	$112,576.75 annual	$76,137.08 annual	$40,097.03 annual	$61,982.54 annual

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Gaining Visibility Through Operational Data

- Modern systems provide visibility beyond basic location/speed.
- **Data points captured can include:**
  - Speeding relative to limits
  - Abrupt Braking / Acceleration / Cornering
  - Seat Belt Usage patterns
  - Idling Duration & Location Context
  - Patterns indicative of risk (via analysis)
- **Key Benefit:** Provides *Objective Data* for informed decisions.

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Translating Data into Safety Actions & Savings

- **Performance Metrics:** Quantify trends, benchmark, enable objective coaching discussions.
- **Real-time Feedback:** Mechanisms can provide immediate alerts to drivers (e.g., for speeding), encouraging self-correction.
- **Targeted Training:** Focus safety resources based on identified needs from data.
- **Incentive Programs:** Data can support programs rewarding safe & efficient habits.
- **Incident Context:** Objective data (sometimes including video) can clarify events & protect drivers/company from false claims.

A culture of safety

Driver — Better driving behaviour — Fleets — Fewer road accidents and fewer claims — Society — Powerful driver incentives and benefits

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The Financial Payoff of Safer Driving

- **Reduced Incidents:** Lower repair costs, downtime, injury claims.
- **Insurance Impact:** Demonstrable safety improvements support favorable premium discussions.
- **Fuel Savings:** Reduced idling & aggressive driving directly cut fuel spend.
- **Maintenance Benefits:** Less wear & tear = lower costs, potentially longer asset life.
- **Improved Retention:** Fair, data-informed programs can aid driver morale & retention.
- **Overall Goal:** Foster a safety culture that protects people and the bottom line.

Maintenance & Diagnostics

Fleet Management

Insurance

Asset & Trailer Tracking

Fuel Management

Cameras & ADAS

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Expanding the View: Fleet Data Beyond Driving

- **Data insights extend beyond the driver:** Asset location, operational health, utilization patterns.
- **Importance of a unified view:** Seeing data from vehicles, equipment, and other assets together provides a complete picture. Avoids fragmented information.
- **Goal:** Holistically manage safety, productivity, performance, and COSTS for ALL operational assets.

Portable

Un-Powered

Temporary

Trailers

Seasonal

Specialized

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Leveraging Data for Broader Risk Mitigation

- **Asset Security:**
  - Location-based alerts (digital boundaries) signal unauthorized movement.
  - Real-time tracking aids recovery efforts, mitigating replacement cost & disruption.
- **Compliance & Operational Safety:**
  - Usage-based maintenance scheduling (hours/miles) ensures adherence, reducing breakdown risk.
  - Diagnostic data provides early warnings of potential mechanical issues.
- **Insurance & Liability:**
  - Objective operational data provides factual evidence for incidents/claims.
  - Documented safety & maintenance practices support risk management profile.
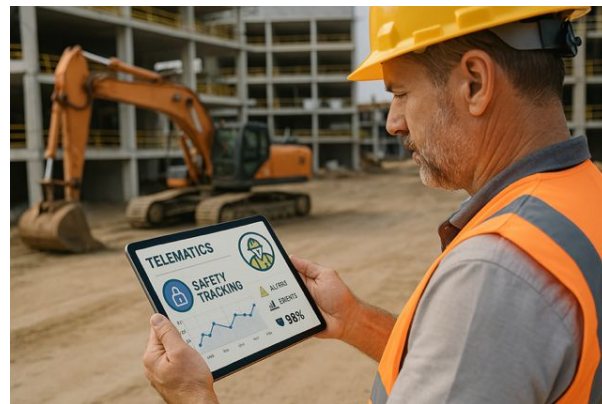
Leveraging Data for Deeper Cost Reduction

- **Maintenance Optimization:** Diagnostic insights enable proactive repairs, reducing costly emergency fixes & downtime. Shift towards condition-based servicing.
- **Fuel Management:** Identify & address excessive idling across all asset types. Data can support routing improvements.
- **Asset Utilization Analysis:**
  - Understand true usage patterns to identify underutilized assets. Inform purchase/rental decisions. Optimize fleet size & mix.
  - Maximize ROI on expensive machinery by ensuring efficient deployment.
- **Operational Efficiency:** Data can improve job costing accuracy (time on site) & optimize resource allocation.

Operations

- Manage vehicle maintenance
- Proactively detect electrical and other issues
- Advanced diagnostic data

Sustainability

- Increase fuel efficiency
- Decrease Idle
- Track CO_2 emissions

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The Power of Integrated Information

- Maximum value comes from connecting operational data with other business systems:
  - Financial / ERP Systems
  - Project Management Tools
  - Maintenance Management Platforms
- Creates a richer, holistic view for strategic decision-making (Finance, Ops, Projects).
- Look for data platforms designed for interoperability.

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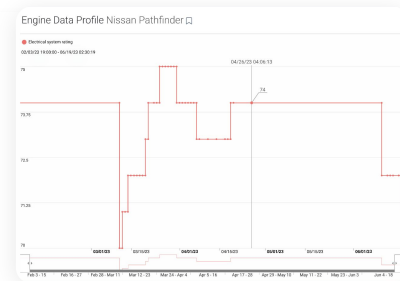
Summary: Safety's Impact on the Bottom Line

Safety

It isn't just a priority, it's a financial strategy.

Data-driven insights improve Safety (Driver behavior, asset security, compliance).

Risk

Improved safety directly reduces Risk (Incidents, liability, insurance costs).

Cost Savings

Reduced risk & optimized operations lead to tangible Cost Savings (Fuel, maintenance, utilization).

Bottom Line

Operational data connects safety performance directly to your Bottom Line.

A Safer Workplace = Stronger Bottom Line.

Let's stay connected

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